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| CS project  2020 |
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# Cs project description

# The goal of this project is to develop a program that operates on courses, exams and student’s data.

# the program uses two defined string formats one to represent courses exams data and the other to represent student’s data. An example of the two strings format is as follows:

# CoursesExams=[101,28/4/2016,A;201,3/5/2016,A;110,5/5/2016,C;103,5/5/2016,A;120,6/5/2016,D;132,7/5/2016,B]

# Students=[191001,(201,101,110);191002,(201,110,103);191003,(110,120,132);191006,(103,132)]

# Courses Exams Data:

# There are 3 fields of a course exam

# Course Code Number

# Exam Date

# Exam Hall

# Fields of the same course exam are separated by comma

# Students Data:

# The Students line contains a list of student’s data separated by ‘;’. Fields of a students are:

# Student ID

# Courses’ codes of student’s attended courses

# Fields of the same student are separated by comma

For the purposes of this project, there is many functions will be used like

* void fillStuctures (char CoursesExams[500] , char StudentsText[1000]); // fill the Stuctures of Courses and Students with given strings
* int Number\_Halls (); // return number of halls
* int Student\_ID\_Min (); // return min student ID
* int Student\_ID\_Max (); // return max student ID
* int Exams\_Period\_InDays(); // return number of days of exams
* int isIDAvailable(int ID); // return 1 if ID is available otherwise return 0
* void Course\_Students (int Course\_ID,int \* Students\_ID , int \* Number\_Students\_In\_Course ); // edit array and fill it with students ID that take a certain course
* void List\_Course\_Students\_More (int Number , int \* Courses\_ID , int \* Number\_Courses\_More ); // edit array and fill it with students ID have course more than certain number
* void List\_Student\_Courses\_Less (int Number , int \* Students\_ID , int \* Number\_Students\_Less ); //edit array and fill it with Courses ID have students less than certain number
* void List\_Hall\_Students (char ExamHall , char ExamDate[] , int \* Student\_ID , int \* Number\_Students\_At ); //edit array and fill it with students ID that have exam at a given hall and date
* void List\_Hall\_Students\_InAnyday (char ExamHall ,int \* Student\_ID , int \* Number\_Students\_At ); // edit array and fill it with students id that have exam at given all at any day

# Flowchart:

# Inputs and outputs:

# Note: To read to strings format from the user the user should put the two strings at new file called Data.txt in same folder of main.c file

# 1-

Number\_Students

4

2-

Number\_Halls

4

3-

Student\_ID\_Min

191001

4-

Students\_Dropped\_IDs

191004

191005

5-

Exams\_Period\_InDays

10

6-

Course\_Students ​201

191001

191002

7-

List\_Course\_Students\_​More 1

201

103

110

132

8-

List\_Student\_Courses\_Less 3

191006

9-

List\_Hall\_Students\_InAnyDay ​A

191001

191002

191006

List\_Hall\_Students ​A, 5/5/2016

191002

191006

10-

11-

Quit

Thanks!





